

57

Notice of Allowability

Application No.

10/825,226

Examiner

Zachary M. Pape

Applicant(s)

CHEN, HUANG-HAN

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/16/2004.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☒ The drawings filed on 16 April 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



**ANATOLY VORTMAN
PRIMARY EXAMINER**

DETAILED ACTION

EXAMINER'S AMENDMENT

1. On page 4 of the specification, Line 12, the phrase "having good a thermal" has been changed to - - having a good thermal - -

In claim 1, line 5 the phrase, "and housing housings" has been changed to - - and outer housings - -

In claim 1, lines 6-7 the phrase, "wherein, between two adjacent partitions is formed with a path penetrating through the housing" has been changed to - - wherein paths penetrating through the housing are formed between two adjacent partitions - -

In claim 1, lines 11-13 the phrase, "(odd-number path each having an opening at a front end portion thereof, an each even-number path having an opening at a rear end portion thereof)" has been changed to - - (odd-number paths each having an opening at a front end portion thereof, and even number paths each having an opening at a rear end portion thereof) - -

In claim 1, line 20 the phrase, "and a pump; and can be directly" has been changed to - - and a pump which can be directly - -

The above amendments to the claims are merely changes to minor informalities and do not change the scope of the claim(s).

Allowable Subject Matter

2. Claims 1-2 are allowed.

The following is an examiner's statement of reasons for allowance:

The allowability resides in the overall structure of the device as recited in independent claim 1 and at least in part because claim 1 recites, "odd-number paths each having an opening at a front end portion thereof, and even number paths each having an opening at a rear end portion thereof", "a plurality of transverse partitions between the inner and outer housings", "a cooling liquid is poured into the housing" and "a pump which can be directly attached to a CPU or disc drive".

The aforementioned limitations in combination with all remaining limitations of claim 1 are believed to render said claim 1 and all claims dependent therefrom (2) patentable over the art of record.

The closest reference to the present invention is believed to be McDunn et al. (US 5,831,824). McDunn et al. teaches a housing having paths (32, 34, etc.), and sealing panels (46, 48, 60), however McDunn et al. fails to teach a pump which can be directly attached to a CPU or a hard disc of a computer, and further that the "cooling liquid is poured into the housing".

US 6,816,561; US 5,675,473; US 6,442,023; US 6,763,880; US 6,609,561; US 5,764,483 all further teach liquid cooling.

The above cited references, either taken alone or in combination, are not believed to render the present invention unpatentable as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP

A handwritten signature in black ink, appearing to read 'A. Vortman', with a long horizontal stroke extending to the right.

**ANATOLY VORTMAN
PRIMARY EXAMINER**